DOCUMENT RESUME

ED 267 333 CG 018 913

AUTHOR Hill, Kenneth A.; And Others
TITLE Sociometric Status and Sex Differences in Children's Friendship Preferences.
PUB DATE Aug 85
NOTE 25p.; Paper presented at the Annual Convention of the American Psychological Association (93rd, Los Angeles, CA, August 23-27, 1985).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Age Differences; *Altruism; Elementary Education; Elementary School Students; Foreign Countries; *Friendship; Grade 3; Grade 6; *Interpersonal Attraction; *Preadolescents; *Prosocial Behavior; *Sex Differences; Social Behavior
IDENTIFIERS Canada; *Popularity

ABSTRACT

The relationship between altruistic behavior and popularity found in young children becomes much less defined with older children. In a paired-comparison procedure, 144 children from two elementary schools ranked the relative attractiveness as a potential friend of four fictional children described as altruistic, prosocial-aggressive, good at sports, or group-oriented. The sociometric status of the children on these variables was also assessed, in addition to liking measures. The results revealed marked sex and grade differences both in the rankings and in the correlations of the sociometric measures. In general, both boys and girls ranked the altruistic child highest and the group-oriented child a close second, with the prosocial-aggressive and good-at-sports child considerably lower. However, the sociometric data revealed a much different picture of how these variables could predict actual liking among this sample, especially among the older children. While all variables were significantly correlated with liking in the third grade sample, only group orientation and being protective of friends predicted liking in sixth grade boys, and only being good at sports predicted liking for sixth grade girls. Most importantly, the correlations between altruism and liking declined significantly in the older children such that altruism bore no relationship to social acceptance nor to any of the remaining sociometric variables. These results are consistent with recent research showing that altruistic behavior may have a questionable status among preadolescents (especially boys). (Author/NRB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED267333

Sociometric Status and Sex Differences in Children's Friendship Preferences

Kenneth A. Hill, Carey Hewitt and Krista Jackson

Saint Mary's University

CG 018913

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Kenneth A. Hill

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Presented at the annual meeting of the American Psychological Association, Los Angeles, August, 1985

Abstract

In a paired-comparison procedure, 144 children from two elementary schools (Grades 3 and 6) ranked the relative attractiveness as a potential friend of four fictional children described as altruistic, prosocial-aggressive, good at sports, or group-oriented. The sociometric status of the children on these variables was also assessed, in addition to liking measures. As predicted, there were marked sex and grade differences both in the rankings and in the correlations of the sociometric measures. In general, both boys and girls ranked the altruistic child highest and the group-oriented child a close second, with the prosocial-aggressive and good-at-sports child considerably lower. However, the sociometric data revealed a much different picture of how these variables predict actual liking among this sample, especially the older children. While all variables were significantly correlated with liking in the Grade 3 sample, only group orientation and being protective of friends predicted liking in Grade 6 boys, and only being good at sports predicted liking for Grade 6 girls. Most importantly, the correlations between altruism and liking declined significantly in the older children such that altruism bore no relationship to social acceptance nor to any of the remaining sociometric variables. Results were described as being consistent with recent research showing that altruistic behavior may have a questionable status

among preadolescents (especially boys) and that the apparent age "increase" in altruism during middle childhood may be an artifact of experimenter demands.

Sociometric Status and Sex Differences

in Children's Friendship Preferences

It has long been concluded by researchers in children's peer relations that popular children are more likely to administer positive reinforcers to their agemates and are generally more altruistic or prosocial than average (e.g., Hartup, Glazer, & Charlesworth, 1967; Lott & Lott, 1974; Marshall & McCandless, 1957; Masters & Furman, 1981; Moore & Updegraff, 1964). However, an examination of the relevant literature raises a number of questions about the relationship between popularity and prosocial behavior. First, research showing such a relationship has been restricted almost solely to preschool children 5 years and under (e.g., Hartup et al, 1967; Masters & Furman, 1981; Moore & Updegraff, 1964), while results of research involving older children has been equivocal at best. For example, in a study that is frequently cited as evidence that popular elementary school children are more prosocial than their peers, Gottman, Gonso, and Rasmussen (1975) found that relatively popular third- and fourth-grade children distributed only marginally more positive reinforcers to classmates ($p < .10$) than did less popular children. Moreover, using a number of behavioral measures of helping, Hampson (1984) found that eighth-graders of only moderate popularity were more altruistic than their more popular peers, such as volunteering to

tutor classmates or to counsel handicapped children. As well, Coie and Kupersmidt (1983) found that popular fourth-grade boys were not significantly more verbally supportive to peers than were rejected children. In sum, this research seems to cast doubt on the existence of a simple relationship between social acceptance and prosocial behavior during middle childhood and preadolescence.

Hill (1984) proposed that such equivocal findings may be due in part to sex differences in peer relationships emerging after the preschool years. Based on findings that girls are more likely to mention helping and sharing as important components of friendship than are boys (Bigelow & LaGaipa, 1975; Sharabany, Gershoni, & Hoffman, 1981), it was proposed that such altruistic behavior should be more facilitative of girls' peer acceptance than that of boys. This hypothesis was supported by an analysis of correlations of sociometric nominations of children in Grades 4, 5, and 6. While the Pearson's correlation between popularity and prosocial reputation ("is nice and likes to help people") for girls was .49, the same correlation for boys was only .15, a statistically significant difference. Perhaps equally telling was the finding that in three of eight classrooms studied the single most prosocial boy (as judged by peers) received no liking nominations from classmates.

The present study represented an attempt to replicate and

extend these findings. Boys and girls in Grades 3 and 6 heard about fictional children who were described as frequently engaging in one of four social activities: (a) altruistic (helping and sharing), (b) group-oriented (preferring to play with two or more peers at a time), (c) prosocial aggression (protecting friends from playground bullies), or (d) winning at sports and games. It was hypothesized that girls would rank the altruistic child highest as a potential friend. Based on research indicating that boys tend to prefer group activities over one-to-one interaction (Waldrop & Halverston, 1975), it was predicted that boys (especially older boys) would rank the group-oriented child highest, with the altruistic boy considerably lower. In an attempt to compare these preferences based on hypothetical situations with actual preferences, children were asked to nominate a classmate most resembling each fictional child and to list three same-sex peers whom they liked most.

Method

Subjects

Children from Grades 3 and 6 from two elementary schools participated in the study. In an attempt to assess possible socioeconomic differences, one of the schools was selected from a predominantly blue-collar neighborhood with many single-parent

families and unemployed heads of households. The second school was located in an upper-middle class neighborhood where parents were employed predominantly as professionals or white-collar workers. Parent consent forms describing the study were sent home with every child in each classroom. Only children returning the forms with parent approval were included in the study. Initially, there was a total of 80 third-graders (mean age = 9 yrs, 4 mos) and 79 sixth-graders (mean age = 12 yrs, 6 mos) participating. In one Grade 3 class only two of five girls returned parent consent forms with approval; data for these girls were not included in the analysis due to the unreliability of sociometric measures. Children moving or being absent during data collection resulted in a further reduction to: 37 Grade 3 boys, 39 Grade 3 girls, 36 Grade 6 boys, and 41 Grade 6 girls. Data for eight further children were randomly excluded in order to equate groups at n = 36, resulting in a total sample of 144.

Procedures

Teachers first administered a brief sociometric test to the children in their respective classrooms, which consisted merely of listing the participating children on the blackboard and asking each child to write down privately the names of three same-sex classmates they liked most on the list.[1]

Approximately three weeks later each child was interviewed individually by a female experimenter. Children were told about a fictional (same-sex) child who was new to a school and interested in making friends. An accompanying illustration portrayed a child standing alone on a playground during recess while peers played busily nearby. The participant was then told that he or she would hear about some of the kids the fictional child observed and would be asked which ones the participant thought would make the best friends.

In a paired-comparison procedure, children were exposed to all possible combinations of four alternatives: (a) an altruistic child who likes to help his or her friends out when they need it; (b) a group-oriented child who prefers to play with lots of kids at a time; (c) a child who is good at sports and games; and (d) a child who likes to protect his or friends from bigger kids who pick on them. Accompanying illustrations portrayed the altruistic child sharing his or her lunch with a friend who forgot theirs, the group-oriented child building a snowman with several friends, the good-at-sports child winning a foot race, and the prosocial-aggressive child facing down in a threatening manner another child who had been described as picking on his or her friend. In each of the six possible pairs participants indicated which of the two

fictional children he or she thought the new child would like most.

After collection of the paired-comparison data, children were again shown the list of participating classmates and asked to indicate which same-sex peer most resembled each of the four fictional characters described above.

Results

Preference Data. A preliminary Schools x Grades x Sex x Characteristic Anova showed no main effects or interactions involving schools; data were then collapsed across schools for higher statistical power. A second, 2 (Sex) x 2 (Grades) x 4 (Characteristics) Anova was then conducted on the preference data, with repeated measures on the latter variable.[2] Results yielded a significant main effect for characteristic, F (3, 420) = 74.62, $p < .001$, with altruism ranked first overall, followed closely by group orientation, and with good-at-sports and prosocial agression tied for a distant fourth. Of more theoretical interest is a Sex x Characteristic interaction, F (3,420 = 3.24, $p < .05$. A Duncan's test for multiple comparisons of cell means (see Table 1) reveals that both boys and girls ranked altruism and group-orientation in a remarkably similar fashion, disagreeing marginally (and nonsignificantly) with respect to prosocial agression, but with boys ranking the good-at-sports alternative significantly higher than did girls. A significant Grades x Characteristic interaction,

F (3,420) = 4.56, $p < .01$, indicated that group-orientation was ranked significantly higher in Grade 6 than in Grade 3, while altruism was ranked significantly lower by the older children than by the younger. Grade 6 children in fact showed a reversal of the overall trend by ranking group-orientation slightly (but nonsignificantly) higher than altruism (see Table 2).

Sociometric Data. Numbers of nominations for each child for all five sociometric variables were transformed to z scores for each classroom. These scores were then intercorrelated according to grade level and sex, with $n = 36$ for each group. Findings of particular interest include a significant drop in the relationship between popularity and altruistic reputation for boys between Grades 3 and 6, and an even more dramatic drop in the correlation between popularity and group-orientation for girls (see Tables 3 and 4). While all four social characteristics were significantly correlated with popularity at Grade 3, only group-orientation and prosocial aggression were related to boys' popularity in Grade 6, and only good-at-sports was significantly related to girls' popularity. These results contrast strikingly with the preference data and are much more consistent with hypotheses, although the expectation that altruistic reputation would correlate significantly with liking for sixth-grade girls was not confirmed.

Additional correlational results of some interest refer to prosocial-aggressive reputation. While this variable was significantly related to liking for third-grade girls and boys, the same correlation was significantly lower in sixth-grade girls (and statistically nonsignificant), although relatively unchanged in boys. Its relation to altruistic behavior is perhaps even more interesting. Both boys and girls in Grade 6 showed significantly lower correlations between these variables than did third graders, with the (negative) correlation for boys reaching statistical significance. This latter finding suggests that boys in the older sample made clear distinctions between the two forms of "prosocial" behavior and seem to favor sticking up for friends aggressively to acts of altruism (that is, only the former was related to liking).

Discussion

Results are most remarkable for the differences between the types of behavioral characteristics children claimed to prefer on the paired-comparisons task and the manner in which the same characteristics predicted (or failed to predict) actual liking for classmates, especially among the older sample. Overall, both boys and girls ranked altruistic behavior as the most preferred characteristic when responding to fictional children in hypothetical situations. While the sociometric data confirm that

having an altruistic reputation may have a modest relationship to being liked in third graders, this relationship fell significantly to nil by Grade 6, especially for boys, Moreover, the high ranking of group orientation on the paired-comparisons task was belied by the sociometric findings of sixth-grade girls, where this variable correlated negatively (though not statistically significant; $r = -.23$) with liking. As predicted, only boys in the older sample showed such a relationship in their sociometric nominations ($r = .48$). The latter findings for the older children are therefore consistent with previous research showing that boys tend to prefer group over one-to-one interaction, and, conversely, that for girls dyadic relationships are more stable and apparently more satisfying for girls than triadic relationships (Eder & Hallinan, 1978; Waldrop & Halverston, 1975).

The finding that, for girls of both grades, being good at sports was the best predictor of being liked was a singularly unexpected result and one for which we could find no precedence in the literature. As well, the absence of a significant correlation between liking and altruism for sixth-grade girls ($r = .14$) is also inconsistent with predictions and fails to replicate Hill's (1984) finding of $r = .49$ for girls in Grade 4, 5, and 6 combined. This difference may reflect mean differences in age between the two studies, or differences

in the presentation of the prosocial nomination measure. Hill (1984) merely asked children to nominate someone who was "nice and likes to help people", while in the present study participants were given examples of such altruistic behavior accompanied by an illustration. In the latter case, it may have been less easy to nominate friends and other liked peers who did not fit the description.

The finding that prosocial aggression (protecting a friend) was also related to liking for boys of both grades (and girls of Grade 3) is consistent with and would appear to extend previous findings that engaging in so-called "appropriate" aggression predicts popularity (Lesser, 1959). It appear ironical indeed that any form of aggressive behavior, however "prosocial", should bear a stronger and more consistent relationship to liking than actual acts of altruism, such as sharing and helping.

Considering the present results in the context of recent research on children's prosocial behavior, it may be time to reconsider the role of altruism in children's peer relationships. While theorists like Piaget (1932) and Sullivan (1953) proposed that children become increasingly more sensitive to the needs of their friends during middle childhood, this does not necessarily mean that altruistic acts increase with age, or even that friends value such self-sacrificing behavior in each other. Indeed, in a recent and

well-designed study, Zarbatany, Hartmann, and Gelfand (1985) found that the alleged age/generosity relationship long believed to be robust (Handlon & Gross, 1958; Underwood & Moore, 1982) may merely be a function of how sensitive children of different ages (Grades 1, 3, and 5) are to experimenter demands to be generous. When such demands were low rather than high, there were no age differences in generosity.

The difference between what children say about prosocial behavior and how they actually behave among friends is well illustrated in a study by Berndt (1981a) on sharing and helping among children in Grades K, 2, and 4. Although both boys and girls said that they would help friends more than acquaintances, neither actually did so on a behavioral task involving altruistic sharing. Girls shared equally between friends and acquaintances, and boys actually shared more with acquaintances than with friends.

Considering these findings with those of Zarbatany et al. (1985) and of the present study, it appears possible that the apparent high value children place on altruistic behavior is at least in part an experimental artifact, resulting from a desire to appear to adhere to adult exhortations to "be nice to people". While such oughts may be accepted uncategorically by younger children, they may eventually come into conflict with norms for

equality and mutual accommodation between friends which peak during late-middle childhood or preadolescence (Piaget, 1932). Indeed, research by Berndt (1981a, 1981b) has shown that, between friends, children adhered much more to an equality norm than to an altruistic norm. When helping ensured equal distribution of rewards between friends, children were "prosocial" (Berndt, 1981b). However, when helping meant receiving less than a friend, children (especially boys) preferred to compete (1981a). Moreover, it was found in the former study that fourth graders expected less sharing and helping from friends than did first graders.

It may be instructive for researchers on children's prosocial behavior to review the rather extensive literature on adult recipients' negative reactions to receiving help (Fisher, Nadler, & Whichter-Alagna, 1982). Generally, it has been found that being a recipient of aid can lead to feelings of failure, inferiority, and lowered self-esteem, and that these feelings are especially likely if the helper is similar in background, status, or attitudes to the recipient (e.g., Fisher, Harrison, & Nadler, 1978; Fisher & Nadler, 1976). Thus, helping may conceivably detract from liking by peers when it elicits these reactions. Indeed, findings by Ladd and Oden (1979) suggest that the parameters for appropriate helping are quite restricted, breaching of which may lower a child's social acceptance.

References

Berndt, T. J. (1981a). Effects of friendship on prosocial intentions and behavior. Child Development, 52, 636-643.

Berndt, T. J. (1981b). Age changes and changes over time in prosocial intentions and behavior between friends. Developmental Psychology, 17, 408-416.

Bigelow, B. J., & LaGaipa, J. J. (1975). Children's written descriptions of friendship: A multi-dimensional analysis. Developmental Psychology, 11, 857-888.

Bradley, J. V. (1968). Distribution-free statistical tests. Englewood Cliffs, N. J.: Prentice-Hall.

Coie, J.D., & Kupersmidt, J. B. (1983). A Behavioral analysis of emerging social status in boys' groups. Child Development, 54, 1400-1416.

Eder, D., & Hallinan, M. T. (1978). Sex differences in children's friendships. American Sociological Review, 43, 237-250.

Fisher, J.D., Harrison, C., & Nadler, A. (1978). Exploring the generalizability of donor-recipient similarity effects. Personality and Social Psychology Bulletin, 4, 627-630.

Fisher, J.D., & Nadler, A. (1974). The effect of similarity between donor and recipient on reactions to aid. Journal of Applied Social Psychology, 4, 230-243.

Fisher, J.D., Nadler, A., & Whichter-Alagna, S. (1982). Recipient reactions to aid. Psychological Bulletin, 91, 27-54.

Gottman, J., Gonso, J., & Rasmussen, B. (1975). Social interaction, social competence and friendship in children. Child Development, 46, 709-718.

Hampson, R. B. (1984). Adolescent prosocial behavior: Peer-group and situational factors associated with helping. Journal of Personality and Social Psychology, 46, 153-162.

Handlon, B.J., & Gross, P. (1959). The development of sharing behavior. Journal of Abnormal and Social Psychology, 59, 425-428.

Hartup, W.W., Glazer, J.A., & Charlesworth, R. (1967). Peer reinforcement and sociometric status. Child Development, 38, 1017-1024.

Hill, K.A. (1984). Sociometric status and psychological adjustment in school-age boys and girls. Unpublished manuscript, Saint Mary's University, Halifax, Canada.

Ladd, G.W., & Oden, S. (1979). The relationship between peer acceptance and children's ideas about helpfulness. Child Development, 50, 402-408.

Lesser, G.S. (1959). The relationships betwen various forms of aggression and popularity among lower-class children. Journal of Educational Psychology, 59, 20-25.

Lott, A.J., & Lott, B.E. (1974). The role of reward in the formation of positive interpersonal attituded. In T.L. Huston (Ed.), Foundations of interpersonal attraction. New York: Academic Press.

Marshall, H.R., & McCandless, B.R. (1957). A study in prediction of social behavior of preschool children. Child Development, 28, 149-159.

Masters, J.C., & Furman, W. (1981). Popularity, individual friendship selection, and specific peer interaction among children. Developmental Psychology, 17, 344-350.

Moore, S.G., & Updegraff, R. (1964). Sociometric status of preschool children as related to age, sex, nurturance-giving, and dependence. Child Development, 35, 519-524.

Piaget, J. (1932). The moral judgment of the child. New York: Harcourt.

Sharabany, R., Gershoni, R., & Hoffman, J.E. (1981). Girlfriend, boyfriend: Age and sex differences in intimate friendships. Developmental Psychology, 17, 800-808.

Sullivan, H.S. (1953). The interpersonal theory of psychiatry. New York: Norton.

Underwood, B., & Moore, B. (1982). Perspective-taking and altruism. Psychological Bulletin, 91, 143-173.

Waldrop, M.F., & Halverston, C.F.J. (1975). Intensive and extensive peer behavior: Longitudinal and cross-sectional analysis. Child Development, 46, 19-26.

Zarbatany, L., Hartmann, D.P., & Gelfand, D.M. (1985). Why does children's generosity increase with age: Susceptibility to experimenter influence or altruism? Child Development, 56, 746-756.

Footnotes

[1]Originally, it had been planned to also obtain disliking nominations from each child as a measure of social rejection. However, objections from school personnel led to the abandonment of this measure.

[2]These data were also analyzed non-parametrically according to procedures recommended by Bradley (1968; p. 138-141) for higher-order Friedman analyses of variance for ranked data. Results yielded identically significant main effects and interactions as the parametric Anova reported here.

Table 1

Mean Rankings of Preferences for Social Characteristics by Boys and Girls

	Characteristic			
	Good at Sports	Group-Oriented	Altruistic	Prosocial-Aggressive
Boys	2.93[a] (.95)	2.10[b] (.88)	1.74[c] (.81)	3.24[ad] (.90)
Girls	3.33[e] (.72)	2.00[bc] (.88)	1.74[c] (.72)	2.93[d] (1.05)

Note. Lower means indicate higher preferences. Standard deviations appear in parentheses. Means within the same row or column not sharing a common superscript differ at $p < .05$ by the Duncan's test.

BEST COPY AVAILABLE

Table 2

Mean Rankings of Preferences for Social Characteristics by 3rd & 6th Grade Children

	Characteristic			
Grade	Good at Sports	Group-Oriented	Altruistic	Prosocial-Aggressive
3	3.24^{a} (.77)	2.24^{b} (.87)	1.54^{c} (.66)	2.99^{a} (.96)
6	3.03^{e} (.95)	1.86^{cd} (.89)	1.93^{d} (.86)	3.18^{ae} (.99)

Note. Lower means indicate higher preferences. Standard deviations appear in parentheses. Means within the same row or column not sharing a common superscript differ at $p < .05$ by the Duncan's test.

BEST COPY AVAILABLE

Table 3

Intercorrelations of Sociometric Variables for 3rd-Graders

		2.	3.	4.	5.
1. Liked	m	.41*	.36*	.42**	.33*
	f	.70**	.65**	.33*	.49**
2. Good/Sports	m	-	.16	-.16	.73**
	f		.33*	.34*	.50**
3. Plays/Groups	m	-	-	.15	.29
	f			.19	.28
4. Altruistic	m	-	-	-	.10
	f				.35*
5. Pros. Aggress.		-	-	-	-

Note. Correlations within boxes are significantly different at $p < .05$.

* $p < .05$

** $p < .01$

BEST COPY AVAILABLE

Table 4

Intercorrelations of Sociometric Variables for 6th-Graders

		2.	3.	4.	5.
1. Liked	m	.15	.48**	*-.14*	.35*
	f	.41*	*-.23*	.14	*-.05*
2. Good/Sports	m	-	-.08	.16	*.33**
	f		*-.24*	-.04	*.03*
3. Plays/Groups	m	-	-	-.12	-.09
	f			-.02	.20
4. Altruistic	m	-	-	-	*-.38**
	f				*-.17*
5. Pros. Aggress.		-	-	-	-

Note. Correlations within boxes are significantly different at $p < .05$. Correlations in Italics are significantly different from same-cell correlations in Table 3 (3rd grade sample).

* $p < .05$

** $p < .01$

BEST COPY AVAILABLE